

### **ABSTRACT OF THE DISCLOSURE**

The present invention provides a method of treating  
5 auto-immune diseases in an animal comprising the step of orally  
administering a type one interferon to said animal. Also provided is  
a method of reducing inflammation associated with an auto-immune  
disease in an animal comprising the step of orally administering a  
type one interferon to said animal. Further provided is a method of  
10 decreasing the levels of a cytokine in an individual having multiple  
sclerosis, comprising the step of orally administering a type one  
interferon to said individual, wherein said cytokine is selected from  
the group consisting of TGF- $\beta$ , IL-2, IL-10, IFN- $\gamma$  and the  
inflammatory soluble serum marker ICAM-1. In addition, the  
15 present invention provides a method of decreasing the incidence of  
insulin-dependent diabetes mellitus in at-risk populations,  
comprising the step of orally administering INF- $\alpha$  to individuals of  
said at-risk population.

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